

ABSTRACT OF THE DISCLOSURE

The present invention relates to an apparatus for rapidly analyzing frame(s) of digitized video data which may include objects of interest randomly distributed throughout the video data and wherein said objects are susceptible to detection, classification, and ultimately identification by filtering said video data for certain differentiable characteristics of said objects. The present invention may be practiced on pre-existing sequences of image data or may be integrated into an imaging device for real-time, dynamic, object identification, classification, logging/counting, cataloging, retention (with links to stored bitmaps of said object), retrieval, and the like. The present invention readily lends itself to the problem of automatic and semi-automatic cataloging of vast numbers of objects such as traffic control signs and utility poles disposed in myriad settings. When used in conjunction with navigational or positional inputs, such as GPS, an output from the inventive systems indicates the identity of each object, calculates object location, classifies each object by type, extracts legible text appearing on a surface of the object (if any), and stores a visual representation of the object in a form dictated by the end user/operator of the system. The output lends itself to examination and extraction of scene detail, which cannot practically be successfully accomplished with just human viewers operating video equipment, although human intervention can still be used to help judge and confirm a variety of classifications of certain instances and for types of identified objects.